

## PATENT

U.S. Patent Application Serial No. 09/204,523Attorney Docket No. 97-823RCE1**REMARKS**

In the non-final Office Action, the Examiner rejected claims 1-3 under 35 U.S.C. § 103(a) as unpatentable over CLARK (U.S. Patent No. 5,383,112) in view of NOURI et al. (U.S. Patent No. 6,088,816), and further in view of RITCHIE, JR. et al. (U.S. Patent No. 5,790,523); rejected claims 4-8 under 35 U.S.C. § 103(a) as unpatentable over CLARK in view of NOURI et al. and RITCHIE, JR. et al., and further in view of GARDNER et al. (U.S. Patent No. 5,583,995); rejected claim 10 under 35 U.S.C. § 103(a) as unpatentable over CLARK in view of DAVIS et al. (U.S. Patent No. 5,576,755), and further in view of MURATANI et al. (U.S. Patent No. 6,119,109); rejected claims 11-14 under 35 U.S.C. § 103(a) as unpatentable over CLARK in view of DAVIS et al. and MURATANI et al., and further in view of GARDNER et al.; rejected claims 17 and 18 under 35 U.S.C. § 103(a) as unpatentable over CLARK in view DAVIS et al., and further in view of RITCHIE, JR. et al.; rejected claims 21-25 and 27 under 35 U.S.C. § 103(a) as unpatentable over CLARK in view DAVIS et al. and RITCHIE, JR. et al., and further in view of GARDNER et al.; and rejected claims 15, 16, 19, and 20 under 35 U.S.C. § 103(a) as unpatentable over CLARK in view of DAVIS et al., MURATANI et al., and GARDNER et al., and further in view of NOURI et al. Applicant respectfully traverses these rejections.

By way of this Amendment, Applicant cancels claims 10-16 thereby rendering the rejection of those claims moot. Claims 1-8, 17-25, and 27 remain pending.

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In the Office Action, the Examiner rejected claims 1-3 under 35 U.S.C. § 103(a) as allegedly unpatentable over CLARK in view of NOURI et al., and further in view of RITCHIE et al. Applicant respectfully traverses this rejection.

CLARK is directed to an inventory management system. In CLARK, a serving computer 15 controls the operation of a group of video players 17 in accordance with an exhibition plan or schedule (col. 4, lines 23-26). The exhibition plan includes a five-digit event code, a title, rating code, channel, starting times, dates, run time, and price for each exhibition of a performance (col. 4, lines 34-37).

NOURI et al. is directed to a fault tolerant method for obtaining and displaying, or updating the status of server components through a remote interface board and either a local or remote client machine without intervention of the server operation system software (Abstract).

RITCHIE, JR. et al. is directed to a test system that evaluates the operating state of a head-end of a broadband communications network (Abstract).

In contrast, Applicant's claim 1 recites a schedule management system arranged to receive and validate a schedule, and a content manager system arranged to monitor and control the loading of assets into a video server according to the validated schedule, where the assets include video content scheduled for staggered transmission to subscribers of a near-video-on-demand (NVOD) system using a plurality of channels, where the plurality of channels includes a test channel dedicated solely for testing a selected asset, and where the content manager includes a graphical user interface configured to allow an administrator to view the selected asset using the test channel to

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verify the integrity of the selected asset loaded into the video server. Applicant respectfully submits that CLARK NOURI et al., and RITCHIE, JR. et al., whether taken alone or in any reasonable combination, do not disclose this combination of features.

For example, Applicant respectfully submits that CLARK, NOURI et al., and RITCHIE, JR. et al. do not disclose a test channel dedicated solely to testing a selected asset. The Examiner admitted that CLARK and NOURI et al. do not disclose this feature (Office Action, pg. 5) and relied on col. 25, line 62 to col. 26, line 15, and col. 28, lines 52-60, of RITCHIE, JR. et al. for allegedly disclosing this feature. Applicant respectfully submits that these sections of RITCHIE, JR. et al. do not disclose or suggest the recited test channel.

Col. 25, line 62 to col. 26, line 16, of RITCHIE, JR. et al. discloses:

FIG. 13 is a block diagram illustrating a test facility located at the headend interface unit (HIU) of the broadband communications system. Referring now to FIGS. 3C, 7 and 13, a test control module (TCM) 800 is connected to multiple upstream receiver modules (URMs) 802 and downstream transmitter modules (DTMs) 804. The TCM 800 is connected to each URM 802, also called a demodulator, via an upstream test link 806, which carries radio frequency (RF) test signals during an upstream receiver test. Each DTM 804 is connected to the TCM 800 via the combination of a test RF combiner 808 and a downstream test link 810. The combiner 808 operates to combine the transmit signals output by each DTM 804 and outputs the resultant signal to the TCM 800 via the downstream test link 810 during a downstream transmitter test. The TCM 800, the URMs 802, and the DTMs 804 are connected via bidirectional data communication links 814 to an RF control module (RCM) 812.

The URMs 802, the DTMs 804, and the RCM 812 represent functions conducted by components of the headend interface unit (HIU) 301 shown in FIGS. 7 and 9.

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While this section of RITCHIE, JR. et al. appears to disclose an upstream test link 806 and a downstream test link 810, these test links 806 and 810 do not test a selected asset that includes video content scheduled for staggered transmission to subscribers of a NVOD system, as recited in Applicant's claim 1. Instead, RITCHIE, JR. et al. specifically discloses that these test links are used for testing an upstream receiver and a downstream transmitter, respectively, through the use of radio frequency test signals.

Even assuming, for the sake of argument, that RITCHIE, JR. et al. discloses the recited test channel, as alleged by the Examiner, Applicant submits that one skilled in the art at the time of Applicant's invention would not have been motivated to combine the disclosures of CLARK, NOURI et al., and RITCHIE, JR. et al. in the manner suggested by the Examiner, absent impermissible hindsight. An important concept that should be noted is that in order to reach a proper determination under 35 U.S.C. § 103, the Examiner must step backward in time and into the shoes of a hypothetical "person of ordinary skill in the art" at a time when Applicant's invention was unknown and just before it was made. With this concept in mind, it appears that the Examiner believes that it is conceivable that, having the CLARK document that is drawn to inventory management, one skilled in the art at the time Applicant's invention was made, having no knowledge of Applicant's invention, would have combined the CLARK document with the NOURI et al. document, drawn to a fault tolerant method of obtaining and displaying or updating the status of server components, and the RITCHIE, JR. et al. document, drawn a test system for evaluating the operating state of a head-end of a broadband communications network, to come up with Applicant's invention. Applicant submits that

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one skilled in the art at the time of Applicant's invention would not have been motivated, absent impermissible hindsight, to combine these non-analogous inventions (i.e., inventory management, a fault tolerant method of updating the status of server components, and a system for evaluating the operating state of a head-end) in the manner suggested by the Examiner.

Since CLARK, NOURI et al., and RITCHIE, JR. et al. do not disclose a test channel dedicated solely to testing a selected asset, these documents cannot disclose the content manager system including a graphical user interface that allows an administrator to view the selected asset using the test channel to verify the integrity of the selected asset loaded into the video server, as also recited in claim 1. The Examiner relied on NOURI et al. for allegedly disclosing this feature. While NOURI et al. appears to disclose that an administrator may view status information of server components (Abstract, lines 1-4), NOURI et al. does not disclose or suggest the administrator having the capability to view a selected asset using a test channel that is dedicated solely to testing to verify the integrity of the selected asset loaded into the video server, as recited in claim 1.

For at least the foregoing reasons, Applicant respectfully submits that claim 1 is patentable over CLARK, NOURI et al., and RITCHIE, JR. et al., whether taken alone or in any reasonable combination. Applicant further submits that claims 2 and 3, which depend from claim 1, are patentable over CLARK, NOURI et al., and RITCHIE, JR. et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 1.

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Claims 4-8 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over CLARK in view of NOURI et al. and RITCHIE, JR. et al., and further in view of GARDNER et al. Applicant respectfully traverses this rejection.

GARDNER et al. is directed to a data storage and retrieval system. In GARDNER et al., the system allocates the storage of data across one or more levels of I/O devices organized in a hierarchical manner in such a way as to balance the bandwidth imposed on the I/O devices (Abstract).

Applicant submits that the disclosure of GARDNER et al. does not remedy the deficiencies set forth above with respect to the disclosures of CLARK, NOURI et al., and RITCHIE, JR. et al. Since claims 4-8 depend from claim 1, Applicant submits that claims 4-8 are patentable over CLARK, NOURI et al., RITCHIE, JR. et al., and GARDNER et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 1. Moreover, these claims are patentable over CLARK, NOURI et al., RITCHIE, JR. et al., and GARDNER et al. for reasons of their own.

For example, Applicant's claim 4 recites a head-end configuration manager that is responsive to commands from an administrator and arranged to track configuration parameters of a head-end of the NVOD system, where the configuration parameters determine NVOD channel allocations. The Examiner appears to rely on col. 1, lines 58-65, col. 4, lines 14-58, col. 11, lines 61-68, and col. 13, lines 42-55, of GARDNER et al. for allegedly disclosing this feature.

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Col. 1, line 58 to col. 2, line 1, of GARDNER et al. discloses:

Any video-on-demand system providing multiple data streams should preferably be able to detect and correct errors caused by failures or data aberrations (e.g., disk drive failures or parity errors). Thus, hardware and/or data redundancy and various error correcting schemes are needed to ensure data integrity and availability. However, the use of a "brute-force" disk mirroring scheme or other similarly unsophisticated method is unacceptably expensive in a video-on-demand system, because the amount of data storage could easily extend into terabytes of data, currently out of the price range for many applications.

Contrary to the Examiner's allegation, this section of GARDNER et al. does not disclose or suggest a head-end configuration manager that tracks configuration parameters of a head-end of a NVOD system.

Col. 4, lines 14-59, of GARDNER et al. discloses:

Viewing each media server MS1 through MS3 as a resource which may be used to supply data in the system, each media server is able to provide data from its associated disks at a sustained data rate which is dependent on a number of factors.

First, each media server generally comprises a CPU, memory, internal data bus, and one or more network interfaces across which all data must generally flow when retrieved from the disks and supplied to the network. Thus, each media server can be viewed as a node having a maximum data bandwidth which cannot be exceeded on a sustained basis. In other words, regardless of the number of disks and controllers within the media server, it has a maximum output data rate which cannot be exceeded. The bandwidth of each media server can be determined empirically by attempting to retrieve large quantities of data at a sustained rate using various I/O configurations. (It will be noted that configurations are possible in which the computer itself presents essentially no bottleneck, and the invention is not intended to be limited in this respect). Each node is indicated in FIG. 1 with the designation "N" followed by a number (e.g., N1 is a node corresponding to the data "pipe" through which media server MS1 can supply data).

Second, each media server may comprise one or more disk controllers, each of which typically has a maximum sustainable data rate at which it

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can provide data retrieved from all the disks it controls. For example, SCSI controllers have a typical maximum sustainable data rate of about 4 megabytes per second (4 MB/sec), regardless of how many disks are controlled by that SCSI controller. Although media server MS1 has two disk controllers a1 and a2, the bandwidth of the media server as a whole may be lower than the combined bandwidth of the two controllers, because the node itself may have a lower sustainable data rate than that of the combined controllers. Typically, each SCSI controller can control up to 7 disks, although the invention is not limited in this respect and any type of disk controller or other I/O device can be used. For the sake of clarity, a discussion of separate SCSI "chains" has been omitted, it being understood that an I/O hierarchy may exist within each controller.

Third, each disk controller may control one or more disks, each disk having a maximum sustainable data rate at which it can provide data in read or write operations. Thus, if disk d1 and d2 each can read data at a sustained rate of 3 MB/sec, the maximum data available from these combined disks would be 6 MB/sec.

Similar to the section above, this section of GARDNER et al. does not disclose or suggest a head-end configuration manager that tracks configuration parameters of a head-end of a NVOD system.

Col. 11, line 61 to col. 12, line 2, of GARDNER et al. discloses "[a] primary objective of the above-described scheme is to cause data to be stored in each media server in a manner which balances the anticipated load when the data is retrieved in a sequential manner. Thus, for example, if disk d2 can support a higher effective data rate for reading data than disk d1, then more read operations should be directed to disk d2 at retrieval time in order to prevent 'under-use' of that disk compared to the slower disks."

This section of GARDNER et al. discloses the ability to store data in media servers in a way that balances the anticipated load. Applicant submits that this is different than tracking configuration parameters of a head-end of a NVOD system.

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Col. 13, lines 42-55, of GARDNER et al. discloses:

As shown in FIG. 6, each team of media servers preferably has associated therewith not only a total available bandwidth, but also a "currently allocated" portion of this total available bandwidth. That is, as requests are made to use portions of the available bandwidth associated with each team, a record is kept of how much bandwidth has been actually allocated to clients for that team. In this manner, the system can be guaranteed to deliver the requested bandwidth to clients without exceeding the limits of the system. By the same principle, use can effectively be made of all of the available bandwidth for a particular configuration, thus avoiding wasteful use of resources in the system. This guaranteed allocation of bandwidth will now be described.

This section of GARDNER et al. discloses the ability to allocate bandwidth from a group of media servers to clients that are requesting bandwidth. Applicant submits that this is different than tracking configuration parameters of a head-end of a NVOD system.

Even assuming, for the sake of argument, that GARDNER et al. discloses a head-end configuration manager that is responsive to commands from an administrator and arranged to track configuration parameters of a head-end of the NVOD system, where the configuration parameters determine NVOD channel allocations, as alleged by the Examiner, Applicant submits that one skilled in the art at the time of Applicant's invention would not have been motivated to combine the disclosures of CLARK, NOURI et al., RITCHIE, JR. et al., and GARDNER et al. in the manner suggested by the Examiner, absent impermissible hindsight.

Applicant's arguments above with respect to combining CLARK, NOURI et al., and RITCHIE, JR. et al. are equally applicable here. Applicant submits that one skilled in the art at the time Applicant's invention was made, having no knowledge of Applicant's invention, would not have been motivated to combine the CLARK document, drawn to

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inventory management, with the NOURI et al. document, drawn to a fault tolerant method of obtaining and displaying or updating the status of server components, the RITCHIE, JR. et al. document, drawn to a test system for evaluating the operating state of a head-end of a broadband communications network, and the GARDNER et al. system, drawn to a system for allocating a data file across a group of media servers.

For at least these additional reasons, Applicant submits that claim 4 is patentable over CLARK, NOURI et al., RITCHIE, JR. et al., and GARDNER et al., whether taken alone or in any reasonable combination.

Applicant's claim 5 recites a task management system arranged to generate an indication of tasks to be performed to conduct the loading of assets to the video server. Applicant submits that the Examiner has failed to make a proper rejection of this claim under 35 U.S.C. § 103(a).

A proper rejection under 35 U.S.C. § 103(a) requires that the Examiner set forth in the Office Action (1) the relevant teachings of the prior art reference(s) relied upon, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate, (2) the difference or differences in the claim over the applied reference(s), (3) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and (4) an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification. See M.P.E.P. § 706.02(j). The Examiner failed to address the feature recited in claim 5. Therefore, the rejection of claim 5 under 35 U.S.C. § 103 is improper.

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For at least this additional reason, Applicant submits that claim 5 is patentable over CLARK, NOURI et al., RITCHIE, JR. et al., and GARDNER et al., whether taken alone or in any reasonable combination.

Similar arguments to those set forth above with respect to claims 4 and 5 can be made for Applicant's claims 6 and 7. For each of these claims, the Examiner failed to address the specific features recited therein. Accordingly, the rejection of claims 6 and 7 under 35 U.S.C. § 103 is improper.

Claims 17 and 18 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over CLARK in view of DAVIS et al., and further in view of RITCHIE, JR. et al. Applicant respectfully traverses this rejection.

DAVIS et al. is directed to a system that verifies electronic television program guide data. In DAVIS et al., the system automatically checks program listings data in a database of television program schedule listings used in an electronic program guide (Abstract).

Claim 17 recites a feature similar to that given above with respect to claim 1. Applicant submits that the disclosure of DAVIS et al. does not remedy the deficiencies in the disclosures of CLARK and RITCHIE, JR. et al. Accordingly, Applicant submits that claim 17 is patentable over CLARK, DAVIS et al., and RITCHIE, JR. et al., whether taken alone or in any reasonable combination, for reasons similar to those given above with respect to claim 1. Applicant further submits that claim 18, which depends from claim 17, is patentable over CLARK, DAVIS et al., and RITCHIE, JR. et al. for at least the reasons given above with respect to claim 17.

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Claims 21-25 and 27 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over CLARK in view of DAVIS et al. and RITCHIE, JR. et al., and further in view of GARDNER et al. Applicant respectfully traverses this rejection.

Applicant's claim 21 includes a feature similar to that recited above with respect to claim 1. Applicant respectfully submits that the disclosures of CLARK, DAVIS et al., RITCHIE, JR. et al., and GARDNER et al., whether taken alone or in any reasonable combination, do not disclose verifying the integrity of an asset via a test channel that is dedicated solely to testing assets in the video server, as recited in claim 21.

Even assuming, for the sake of argument, that the combination of CLARK, DAVIS et al., RITCHIE, JR. et al., and GARDNER et al. discloses the features of claim 21, Applicant submits that one skilled in the art at the time of Applicant's invention would not have been motivated to combine the disclosure of CLARK, which is drawn to inventory management, with the disclosures of DAVIS et al., which is drawn to a system that verifies electronic television program guide data, RITCHIE, JR. et al., which is drawn to a test system for evaluating the operating state of a head-end of a broadband communications network, and GARDNER et al., which is drawn to a system for allocating a data file across a group of media servers, since these documents are drawn to non-analogous inventions.

For at least the foregoing reasons, Applicant respectfully submits that claim 21 is patentable over CLARK, DAVIS et al., RITCHIE, JR. et al., and GARDNER et al., whether taken alone or in any reasonable combination. Applicant further submits that claims 22-25 and 27, which depend from claim 21, are patentable over CLARK, DAVIS

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et al., RITCHIE, JR. et al., and GARDNER et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 21.

Claims 19 and 20 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over CLARK in view of DAVIS et al., MURATANI et al., and GARDNER et al., and further in view of NOURI et al. Applicant respectfully traverses this rejection for the following reasons.

MURATANI et al. is directed to an information distribution and billing system. In MURATANI et al., a request from a user causes the information distribution system to retrieve the requested information and transfer a request to a billing processor to generate the necessary billing (Abstract).

Applicant submits that the rejection of claims 19 and 20 is improper. Claims 19 and 20 depend from claim 17. Claim 17 was rejected under 35 U.S.C. § 103(a) as unpatentable over CLARK in view of DAVIS et al., and further in view of RITCHIE, JR. et al. The rejection of claims 19 and 20, however, does not include the RITCHIE, JR. et al. document. Accordingly, the rejection is improper.

Applicant respectfully submits that the disclosures of MURATANI et al., GARDNER et al., and NOURI et al. do not remedy the deficiencies in the disclosures of CLARK, DAVIS et al., and RITCHIE et al. set forth above with respect to claim 17. Accordingly, Applicant respectfully submits that claims 19 and 20 are patentable over CLARK, DAVIS et al., RITCHIE, JR. et al., MURATANI et al., GARDNER et al., and NOURI et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 17.

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Applicant further submits that one skilled in the art at the time of Applicant's invention would not have been motivated, absent impermissible hindsight, to combine the disclosure of CLARK, which is drawn to inventory management, with the disclosures of DAVIS et al., which is drawn to a system that verifies electronic television program guide data, RITCHIE, JR. et al., which is drawn to a test system for evaluating the operating state of a head-end of a broadband communications network, MURATANI et al., which is drawn to an information distribution and billing system, GARDNER et al., which is drawn to a system for allocating a data file across a group of media servers, and NOURI et al., which is drawn to a fault tolerant method of obtaining and displaying or updating the status of server components, since these disclosures are drawn to non-analogous inventions.

In view of the foregoing amendment and remarks, Applicant respectfully requests the Examiner's reconsideration of this application, and the timely allowance of the pending claims.

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To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 07-2339 and please credit any excess fees to such deposit account.

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